

Two New Species of *Eristalis* from India

(Diptera : Syrphidae)

J. L. NAYAR

University of California, Berkeley

Nayar and Nayar (1965) reported two new species of *Eristalis* Latreille in a record of syrphids from Agra. This paper deals with the descriptions of *Eristalis* (*Lathyrophthalmus*) *lalitai* n. sp. and *Eristalis* (*Lathyrophthalmus*) *haileyburyi* n. sp. The types will be deposited in the National Collections of India. I wish to thank Prof. Ray F. Smith, Chairman of the Department of Entomology and Parasitology, University of California, Berkeley, for providing me with facilities for work. I am highly indebted to Dr. F. R. Cole, Dipterologist, for generous advice, encouragement, and checking of the manuscript. My thanks are also due to Prof. R. L. Usinger for help in many ways.

***Eristalis* (*Lathyrophthalmus*) *lalitai* Nayar, new species**

(Figs. 1, 3 and 5)

A medium-sized blackish-gray species; wings hyaline; antennae brownish-black; eyes spotted; thorax with four black vittae and abdomen with whitish bands on 2nd, 3rd, 4th, and 5th segments. Length, 11.45 mm.

FEMALE.—Eyes bare, yellowish with black spots. Ocellar triangle black with brownish ocelli; short black pubescence. Frons black, narrow from vertex to the antennae, dusted grayish-yellow with concolorous pubescence, distinct black pile along upper median one-half of frons. Face about one and one-half times as wide as frons at vertex, slightly grooved below the antennae with bare, black, narrow central bump above mouth edge; silvery yellow pile. Cheeks and mouth border blackish, cheeks with long grayish pile and mouth border dusted gray. Antennal prominence shining black; bare. First and second segments of antennae brownish, flagellum and arista dark brown, arista bare.

Thorax grayish-yellow, brownish along the borders; dorsum with four black vittae; pile yellowish; pro-epimeron and mesepisternum grayish-black with concolorous pubescence; metapleuron, mesepimeron and areas around thoracic spiracles shining black; bare. Scutellum blackish-yellow at base but pale towards apical half, pubescence yellowish. Legs black; extreme tips of the femora, two-thirds of the fore-tibiae, basal one-third of hind tibiae and mid-metatarsus yellowish-brown; pile greyish on black parts and yellowish on yellow-brown regions. Wings hyaline; stigma yellowish with dark brown basally; squamae silvery-yellow with concolorous long fringe; halteres brownish-yellow.

Abdomen black; 1st segment grayish with brownish vertical band running about the median one-third width of segment; upper anterolateral areas of 2nd segment yellowish-gray; 2nd, 3rd, 4th, and 5th segments with whitish cross-band surrounded on either side by dull black band, posterior borders of segments shining black; sixth to tenth segments dull brown; pubescence whitish.

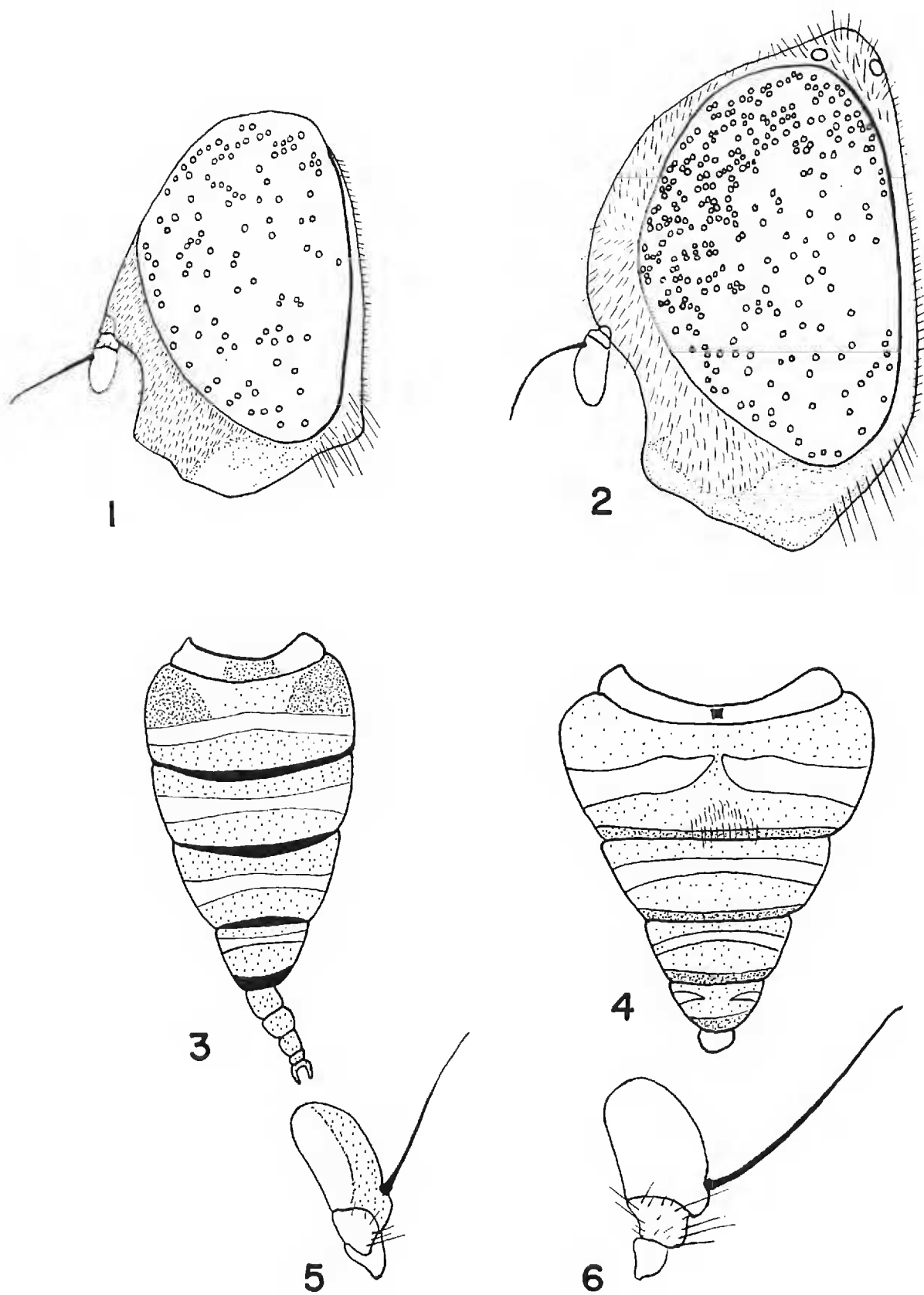


FIG. 1. *Eristalis (Lathyrophthalmus) lalitai* new species, profile of head of female. FIG. 2. *Eristalis (Lathyrophthalmus) haileyburyi* new species, profile of head of female. FIG. 3. *Eristalis (Lathyrophthalmus) lalitai*, abdomen, female. FIG. 4. *Eristalis (Lathyrophthalmus) haileyburyi*, abdomen, female. FIG. 5. *Eristalis (Lathyrophthalmus) lalitai*, antenna. FIG. 6. *Eristalis (Lathyrophthalmus) haileyburyi*, antenna.

Holotype female, ST. JOHN'S COLLEGE, AGRA, INDIA, 10 December 1962 (Lalita Taneja).

The species is related to *Eristalis tabanoides* Jaenn., but differs in frons with distinct black pubescence in the median one-third, a shining black central bump, face slightly grooved below the antennae, antennal prominence shining black, coloration of the pleurae, the scutellum, the legs and the abdomen.

***Eristalis (Lathyrophthalmus) haileyburyi* Nayar, new species**
(Figs. 2, 4, and 6)

A large brownish-yellow species, wings clear; antennae orange; eyes spotted; abdomen conical with yellowish bands and spots; legs orange. Length, 12.43 mm.

FEMALE.—Eyes bare, brownish-yellow, spotted black, black spots more numerous and coalescent on the upper half; ocellar triangle slightly raised, shining black with dark brown ocelli, black pubescence. Frons blackish for about four-fifths from vertex to bases of antennae, yellowish above the antennae, gradually widening from top to the bottom; covered with small black pubescence; face sharply widening below antennae, about one-fourth the width of head at level of antennae, forming rounded yellow central bump; tomentum dense yellow with short yellow pubescence. Cheeks and border of mouth yellowish, cheeks with long yellow silvery pile and mouth border with extremely minute pubescence. Antennal prominence yellowish-black with black pubescence and yellow pile apically. Antennae orange; outer half of third segment brownish-yellow; arista brown, bare.

Thorax yellowish with four distinct shining black vittae running from anterior to posterior end, lateral stripes narrowing towards ends; dorsum with scarce yellow pile but rather dense yellow pubescence along the anterolateral borders, posterolateral borders brownish. Pleurae shining yellow with concolorous pubescence but the lower parts of mesepisternum and mesepimeron blackish with grayish pile. Scutellum blackish-yellow at base and centrally with black pubescence and brownish-yellow along lateral borders with concolorous long pile. Legs entirely brownish yellow; lower two-thirds of fore femur, apical one-third of hind femur and apical half of fore tibia with black pubescence; all the femora with small rounded patch of small black denticles at base, hind femur with additional 2-4 rows of dark, stiff, small spines along lower one-fourth on inner side.

Abdomen brownish-yellow, conical; 1st segment yellow with median narrow brown band not reaching the hind border; second brownish-yellow with pair of long, lobe-like yellow spots, narrowly separated medially, not reaching extreme side margins; third and fourth segments with thick yellow band about middle of segments, band on 4th segment more basally placed; fifth segment with pair of small anterolateral yellow spots; sixth segment heavily dusted yellow; posterior borders of the second, third, fourth and fifth segments brownish; pubescence sparse, yellow, with patch of black pile along medio-posterior border of second segment.

Holotype female, HAILEYBURY HOUSE, ST. JOHN'S COLLEGE, AGRA, INDIA, 3 March 1960 (J. L. Nayar).

The species is related to *Eristalis arvorum* (Fabr.) but differs in face being narrow, the lower parts of mesepipleuron blackish; scutellum blackish-yellow; coloration of the legs, presence of denticles on the bases of femora and the pattern of the abdominal markings.

LITERATURE CITED

- NAYAR, J. L. AND L. NAYAR. 1965. Some interesting Syrphids of Agra. Indian J. Ent., 27 (2): 240-241.

A New Species of *Ephemerella* (*Serratella*) from California¹ (Ephemeroptera : Ephemerellidae)

RICHARD K. ALLEN AND DONALD L. COLLINS

California State College at Los Angeles

The North American species of the subgenus *Serratella* was revised in 1963 (Allen and Edmunds) and included four species from western North America. A recent collection of mayflies from Sequoia National Forest in California included an additional undescribed species of this subgenus.

Ephemerella sequoia Allen and Collins, new species

MATURE NYMPH.—Length: body 6–7 mm; caudal filaments 6–7 mm. Head brown with a large pale macula on frons between compound eyes; without occipital tubercles, but top of head often with fine spicules; maxillary palpi two-segmented (figs. 1–2). Thorax brown; thoracic nota without tubercles, but often with fine spicules; legs unicolorous tan to white; foreleg as in fig. 3; tarsal claws with 6–7 denticles (fig. 4). Abdominal terga brown with pale lateral margins, and with pale median stripe on terga 1–10, stripe often indistinct on terga 1–2; terga 4–8 with short, blunt paired submedian tubercles, tergum 3 often with small tubercles (fig. 5); abdominal sterna brown, with pale lateral margins, dark brown sublateral longitudinal dashes, and dark brown median longitudinal stripe (fig. 6). Caudal filaments brown, often with irregular pale bands, and without setae.

TYPES.—*Holotype*: Nearly mature female nymph, SALMON CREEK AT HORSE MEADOW CAMPGROUND, SEQUOIA NATL. FOREST, TULARE CO., CALIFORNIA, 1-VIII-65, W. P. Vann, in collection California Academy of Sciences, San Francisco. Paratopotypes: 6 female nymphs, 1 nymph

¹ The research upon which this report is based was supported by a grant from the National Science Foundation (NSF GB-3705).